



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,722	11/16/2001	Dayong Chen	4015-1702	2826
24112 7590 10/31/2007 COATS & BENNETT, PLLC 1400 Crescent Green, Suite 300 Cary, NC 27518			EXAMINER WANG, TED M	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 10/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/002,722	Applicant(s) CHEN ET AL.	
	Examiner Ted M. Wang	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-21 is/are allowed.
- 6) ☒ Claim(s) 1 and 11 is/are rejected.
- 7) ☒ Claim(s) 2-6 and 8-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed on 08/14/2007, with respect to the rejection(s) of claim(s) 1-6 and 8-21 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Alanara (US 6,286,122).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US 5,710,772) in view of Alanara (US 6,286,122, previously cited by Examiner on 02/08/2005).

- With regard claim 1, as shown in figures 1-5, Sato discloses a method of classifying a received data frame as being a Discontinuous Transmission (DTX) high (Fig.1(b) for uplink – active speech period, Fig.5 steps S202, S210, S211, and column 6 lines 53-57) or low class (Fig.1(c) for uplink –silent period, Fig.5 steps S202 –S209, and column 6 lines 23-52), each of said classes

Art Unit: 2611

having a corresponding format wherein a known bit pattern is located in different a respective position within said data frame (Fig.1(b) for uplink–active speech period, Fig.1(c) for uplink –silent period, and column 3 lines 38-60), said method comprising:

receiving said frame (Figs.1(b) –1(c) and Fig.2 element 13);

computing a first value (column 6 lines 23-25 and lines 53-57, where the computed value is the data length of the time slot) representing a confidence-weighted correlation between said known bit length and received data of said frame ((Fig.1(b) for uplink – active speech period, known bit length is 324 bits, Fig.1(c) for uplink –silent period, known bit length is 68 bits), wherein the calculated value 68 bits or 324 bits representing a confidence-weighted correlation, a silent period or active speech period.), and

classifying said frame as being a Discontinuous Transmission (DTX) high or low class based on said first value (Fig.5 and column 6 lines 23-57, where if the data length of time slot is found to be 68 bits; it is a silent period and if the data length of time slot is found to be 324 bits; it is an active speech period).

Sato discloses all of the subject matter as described in the above paragraph except for specifically teaching computing a first value representing a confidence-weighted correlation between said known bit pattern and data from a first position of said frame.

However, Alanara teaches computing a first value (column 7 lines 1-5, where the computed first value is the bit error count) representing a confidence-weighted correlation between said known bit pattern and data from a first position of said frame (column 7 lines 3-6) in order to use the known bit pattern without channel coding and then specify a maximum number of bit errors to allow operation with a noisy radio channel (column 6 lines 61-64). Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the method as taught by Alanara in which computing a first value representing a confidence-weighted correlation between said known bit pattern and data from a first position of said frame, into Sato's communication system for classifying a received data frame as being a DTX high or DTX low classes so as to use the known bit pattern without channel coding and then specify a maximum number of bit errors to allow operation with a noisy radio channel.

- With regard claim 11, Sato further discloses wherein said received data frame is processed in a first manner (Fig.5 steps S202-S208) or in a second manner (Fig.5 steps S202, S210, S211) different from said first manner, based on the classification of said frame as belonging to a first class (Fig.5 step S202 result of 68 bits of data length) or a second class (Fig.5 step S202 result of 324 bits of data length).

Allowable Subject Matter

4. Claims 12-21 are allowed.

Art Unit: 2611

5. Claims 2-6 and 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

- The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach and suggest a method of classifying a received data frame as belonging to one of a plurality of possible classes, comprising determining D1, D2 and calculating the ration R steps as recited in claims 12 and 16 and computing a second value as recited in claim 2 and using DTX or CDVCC, and Euclidian as recited in claims 12 and 16, respectively.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is 571-272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted M. Wang

A handwritten signature in black ink, appearing to read 'Ted M. Wang', is written over the printed name.

Ted M Wang
Examiner
Art Unit 2611